LANH69

Assess and improve the condition of soil on land-based sites

Overview

This standard is for those who assess and improve the condition of the soil on land-based sites. Establishing the general condition of the soil and its physical, chemical and biological characteristics in particular involves examination of its texture and condition, drainage characteristics, pH values, pest, disease and weed problems and nutritional requirements.

You must carry out your work in a way which will minimise the impact on the natural environmental and enhance its nature, conservation and recreational value.

If you are working with chemicals or machinery you need to be appropriately trained or certificated in line with current legislation.

Performance criteria

You must be able to:

1. assess the risks associated with the land-based site and the methods of assessing soil condition
2. confirm the specification for assessing the condition of the soil on the land-based site
3. select soil assessment methods appropriate to the specification
4. determine the resources, tools and equipment required for the soil assessment method
5. wear suitable clothing and personal protective equipment (PPE)
6. assess the condition of the soil on land-based sites using the required assessment methods
7. confirm that the integrity of the site is maintained during the assessment of soil condition on land-based sites
8. record findings of soil assessment present soil assessment findings to all those involved in the improvement of soil condition on land-based sites and agree methods for improvement
9. determine the resources, tools and equipment required to improve the condition of soil on land-based sites
10. use agreed methods to improve soil condition on land-based sites
11. prepare, use and maintain tools and equipment for assessing and improving soil conditions safely and correctly
12. restore the land-based site to a clean and tidy condition following the assessment and improvement of soil condition on land-based sites
13. maintain communication with colleagues and others involved in, or affected by, your work
14. dispose or recycle waste and excess materials safely in accordance with relevant legal requirements and to minimise environmental risk
15. carry out your work in accordance with relevant environmental and health and safety legislation, risk assessment requirements, codes of practice and company organisational policies

Knowledge and understanding

You need to know and understand:

1. how to identify hazards within the site and assess any risks to staff, public and the environment
2. how to interpret specifications for assessing the soil condition of land-based sites
3. the range of methods available to assess the condition of soil on land-based sites
4. the types of tools and equipment required for assessing and improving the condition of soil on land-based sites, and how to prepare, use and maintain these safely and correctly
5. the type of clothing and personal protective equipment (PPE) suitable for the activity
6. how to assess the soil condition using the agreed method
7. how to record the findings of soil assessment
8. the different types of soil, soil condition and methods used to improve them
9. the type of soil condition required for different types of plants and crops
10. How to perform a soil ph test
11. different soil nutrient deficiencies and how to improve them
12. the importance of maintaining communication with those involved in, or affected by, your work and how this should be done
13. the importance of following environmental and ecological best practice to help minimise the impact of your work on the environment
14. how to handle, transport, store and dispose of waste in accordance with relevant legal requirements and organisational practice
15. your responsibilities under relevant health and safety legislation, codes of practice and organisational policies

Scope/range

A assess the soil condition on the following land-based sites:

- areas for planting
- areas for restoration
- established planted area

B complete the following soil assessment methods to assess the condition of the soil on land-based sites:

- ph test
- areas for restoration

C improve the soil condition on the following land-based sites:

- areas for planting
- areas for restoration
- established planted area

Glossary

Soil assessment methods: spade diagnosis, soil pit/profile, visual evaluation, earthworm count, plant health monitoring, lab test

Soil improvement methods: digging, use of organic matter and fertiliser

Nutrient deficiency: nitrogen, magnesium, potassium

Soil types: clay, sandy, silt, loam, peat, chalky

Soil Conditions: water logged, compacted, eroded

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